

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau(43) International Publication Date
26 April 2001 (26.04.2001)

PCT

(10) International Publication Number
WO 01/29093 A1

(51) International Patent Classification⁷: C08F 2/50, G03F 7/029

(21) International Application Number: PCT/EP00/10043

(22) International Filing Date: 12 October 2000 (12.10.2000)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data: 99810953.2 20 October 1999 (20.10.1999) EP

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(54) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

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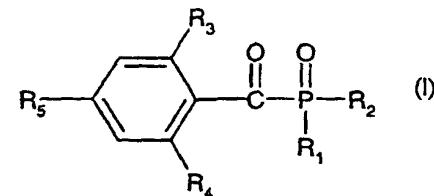
(81) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published:

— With international search report.

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

WO 01/29093 A1



(57) Abstract: Aqueous, storage-stable, non-sedimenting photoinitiator suspensions comprising (a) a mono- or bis-acylphosphine oxide of formula (I), wherein R₁ is C₁-C₂₀alkyl; C₂-C₂₀alkyl interrupted by one or more O atoms; C₁-C₁₂alkoxy; phenyl-C₁-C₄alkyl; or phenyl that is unsubstituted or substituted by C₁-C₂₀alkyl, C₁-C₁₂alkoxy, halogen, cyclopentyl, cyclohexyl, C₂-C₁₂alkenyl, C₂-C₁₈alkyl interrupted by one or more O atoms, and/or by phenyl-C₁-C₄alkyl; or R₁ is biphenyl; R₂ is an aromatic radical or has one of the meanings given for R₁; R₃ and R₄ are each independently of the other C₁-C₁₂alkyl, C₁-C₁₂alkoxy or halogen; and R₅ is hydrogen, C₁-C₁₂alkyl,

C₁-C₁₂alkoxy or halogen; (b) a dispersant; and (c) water are suitable especially in the photopolymerisation of aqueous formulations comprising ethylenically unsaturated monomers.